

## IN THE CLAIMS

Please cancel claims 5, 7-10, 14-18, 24 and 25 without prejudice.

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1. (Currently amended) A method of detecting transitions in processing video comprising:
  - acquiring a video stream;
  - dividing said video stream into a plurality of sub-sections;
  - determining a probability of whether a transition ~~effect to a separate sub-section is~~ present at one of the plurality of a sub-sections of said video stream; and
  - embedding said probability of said transition into said sub-section of said video stream.
2. (Original) The method of Claim 1 wherein said determining said probability is performed by a classifier.
3. (Original) The method of Claim 2 wherein said classifier is provided a fixed-sized portion of said sub-section.
4. (Currently amended) The method of Claim 1 further comprising outputting a location of said transition effect and a duration of said transition effect in said video stream.
5. Cancelled

6. (Original) The method of Claim 1 wherein said transition is a dissolve, a fade, a wipe, a iris, a funnel, a mosaic, a roll, a door, a push, a peel, a rotate, or a special effect.

7-10. Cancelled

11. (Currently amended) A method of processing video comprising:  
~~acquiring a first shot and a second shot from a plurality of at random a video streams, comprising at least two separate shots, said separate shots comprising a transition free uninterrupted subset of said video stream;~~  
~~identifying a sub-section of said separate shots as a first shot transition and a second shot transition, determining a duration of a transition sequence based on said shot transitions determined by a transition probability distribution; and~~  
~~generating a video transition sequence comprising the transition sequence from said first shot transition and to said second shot transition of for said determined duration; and~~  
~~training a classifier to detect a transition effect within said generated video sequence.~~

12. (Currently amended) The method of Claim 11 wherein said transition probability distribution represents a fixed duration.

13. (Original) The method of Claim 11 wherein said transition sequence is a dissolve, a fade, a wipe, a iris, a funnel, a mosaic, a roll, a door, a push, a peel, a rotate, or a special effect.

14-18. Cancelled

19. (Currently amended) A machine-readable medium that provides instructions, which when executed by a set of one or more processors, cause said set of processors to perform operations comprising:  
deriving a at least one frame-based video stream, each of said frame-based video streams being associated with forms a time series stream;  
re-scaling said time series of said frame-based video stream; and  
generating a time series stream pyramid from said re-scaled time series stream;  
inputting into a classifier a fixed-sized portion of said time series;  
determining receiving from said classifier a transition effect probability, said transition effect probability indicating determining the a probability of whether a transition effect exist within a said fixed-sized portion of said re-scaled time series of said frame-based video stream. ;  
integrating said time series and said transition probability into a transition frame-based probability; and  
outputting a location and a duration of said transition effect.

20. (Currently amended) The machine-readable medium of Claim 19 further comprising re-scaling the set of time series of said frame-based video stream into  
the frame-based video stream being associated with the time series. a pre-filter  
component and a post filter component.

21. (Currently amended) The machine-readable medium of Claim 19 further comprising a wherein said time series pyramid including includes said set of time series frame-based video streams formed from at least one sampling rate to be used by said classifier.

22. (Currently amended) The machine-readable medium of Claim 19 wherein said receiving said transition effects probability comprises determining results in said transition effects probability generated for each at various of the set of time series scales.

23. (Original) The machine-readable medium of Claim 19 wherein said transition effect is a dissolve, a fade, a wipe, a iris, a funnel, a mosaic, a roll, a door, a push, a peel, a rotate, or a special effect.

24-25. (Cancelled)

26. (Currently amended) A machine-readable medium that provides instructions, which when executed by a set of one or more processors, cause said set of processors to perform operations comprising:  
acquiring one or more of a video streams and a probability distribution, said video stream including a shot description;  
determining a duration of a transition sequence according to said probability distribution;  
selecting, at random, a first shot and a second shot from the one or more video streams, each shot being transition free; both shots are selected at random; and  
generating said video-transition sequence of said duration, said video-transition sequence including a transition effect; and  
training a classifier to detect said transition effect within said generated transition sequence.

27. (Original) The machine-readable medium of claim 26 wherein said transition effect includes a portion of said first shot and a portion of said second shot.

28. (Original) The machine-readable medium of claim 26 wherein said video transition sequence includes a portion of said first shot before said transition effect, said transition effect, and a portion of said second shot after said transition effect.

29. (Original) The machine-readable medium of claim 26 wherein said transition effect is a dissolve, a fade, a wipe, a iris, a funnel, a mosaic, a roll, a door, a push, a peel, a rotate, or a special effect.

30. (New) The machine-readable medium of claim 26 further comprising:  
training a classifier to detect said transition effect within said generated transition sequence.

31. (New) The method of claim 11, further comprising:  
training a classifier to detect a transition effect within said generated video sequence.

32. (New) A system comprising:  
a transition synthesizer module to generate a video sequence, the video sequence comprising one or more synthesized transition effects; and  
a classifier module, the classifier module to be trained to identify a transition effect based on the generated video sequence.

33. (New) The system of claim 32, wherein the transition synthesizer module to generate the video sequence using random video shots from a plurality of video streams, the video shots being transition free.

34. (New) The system of claim 32, wherein each synthesized transition effect is associated with a duration based on a probability distribution.

35. (New) The system of claim 32, wherein the training of the classifier module comprises re-scaling a time series of frame-based feature values associated with the generated video sequence.

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